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ANNOUNCER: PMA Information Branch

Radio Script #7

February 25, 1948

COVER AND GREEN MANURE CROPS

ANNOUNCER: One of the crops that is becoming more and more useful in this country is the cover crop....which often later becomes a green manure crop.

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Today we're going to take a look at some of these cover crops in different parts of the country to see the good points of some of them....and the shortcomings too....

The man who is going to help us take that look is (name), who is the (title) of the (State or Country) Agricultural Conservation Committee.

ACP REP: It is really surprising how useful farmers are finding cover crops. In 1936 when the agricultural conservation program was first started there were a little less than 5 million 750 thousand acres of cover crops grown. Ten years later, in 1946 there were 21 million, 336 thousand acres.

ANNOUNCER: That is a big increase.

ACP REP: Yes it is but we still have a long way to go before we will have all of these crops that we need to hold and build up the soils of this country.

ANNOUNCER: What do the ACP committeemen estimate we need in the way of cover and green manure crops.

ACP REP: It isn't far from one hundred million acres....the figure is a little less than 98 and three-quarter million acres.

ANNOUNCER: Well then these crops will have to grow under a great many different conditions.

ACP REP: They certainly will for they are grown all the way from the orange groves of California to the potato fields of northern Maine and from the vegetable fields of Florida to the apple orchards of Washington.

ANNOUNCER: What is the first thing that we're supposed to look for in a cover crop?

ACP REP: If we were out looking at a field of hairy vetch now the first thing we'd want to know would be whether it was holding the soil from erosion.

ANNOUNCER: Whether its roots get hold of the particles of soil and hold on to them so that the water can't wash them away.

ACP REPRE:

That is one of the first things we'd check on. Then many fields of hairy vetch and winter peas in this country are pastured by cattle and hogs. We would want to see how the pasture holds up when grazed by livestock.

ANNOUNCER:

I suppose if the cover crop doesn't make enough growth, it might not keep the soil from washing.

ACP REPRE:

There have been plenty of cover crops like that in this country on some worn-out soils. In many cases lime and plant foods have to be added to the soil to get the cover crops to grow.

ANNOUNCER:

Then, one of the things we'll look for is to see how tall the crop grows.

ACP REPRE:

Even more important than that is to see how thick it is on the ground. When the heavy rains come the rain drops on unprotected land splash particles of soil up in the air as much as two feet.

ANNOUNCER:

If there is a good blanket of cover crop over the ground then the rain drops will not cause this soil splashing. Is that right?

ACP REPRE:

That's correct. Men who have studied this subject and measured the damage caused by pelting rain on unprotected soil conclude that this splashing is one of the important causes of erosion.

ANNOUNCER:

All right....there are two things to look for....how tall the crop is, and how completely it covers the ground....yes, and whether enough has been left on the ground after grazing to protect the soil.

ACP REPRE:

Of course you know that farmers along the Gulf of Mexico and up along the South Atlantic Coast use a crop that animals refuse to eat, that is, blue lupine. It is a legume and adds nitrogen to the soil. And since the entire crop is turned under it builds up the organic matter of the soil in a hurry.

That brings up something else though....a lupine has been developed which cattle like -- a white one. The white lupine is adapted to the same general area where blue lupine grows. Like many other new cover crops it is worth looking into.

ANNOUNCER:

I know we were short of crimson clover and Austrian winter peas last fall. And we had a larger-than-usual supply of ryegrass. Some farmers who usually plant Austrian winter peas, planted ryegrass instead. I'm sure you would suggest that now is a good time for them and their neighbors to take a look at the ryegrass and see how it came through the winter.

ACP REPRE: Yes, that is a very good suggestion. And, those farmers who are going to take a look at a ryegrass cover crop might take their shovel along with them. If they'll dig up a shovelful of ryegrass and lay it on the ground and hit it with the back of the shovel they'll see one of the reasons why ryegrass is a good cover crop.

ANNOUNCER: What is that?

ACP REPRE: Ryegrass has an especially large root system. Like the other grasses....it holds the particles of soil together so that they can't be washed away or splashed up in the air....and it improves the structure of the soil....so that the soil works easier and absorbs water faster.

ANNOUNCER: Those virtues might make a farmer decide to change over to ryegrass.

ACP REPRE: Well it might give a farmer some ideas about the best use of cover crops. He could use a legume to help build up the nitrogen of the soil one year; another year he could put a ryegrass cover crop on his land. He would get many of the good effects that come from leaving the land in pasture every few years.

ANNOUNCER: Roots make the soil work easier and provide a better seed bed. Is that it?

ACP REPRE: That is exactly it. For farmers who haven't grown ryegrass before they'll find that when they break up a shovelful of it....the shovelful will be filled with roots, and those roots extend well down into the soil. It might be well to explain that the value of a cover crop is determined by what grows above the ground and in the soil.

ANNOUNCER: I suppose that is the only way to get an idea of the amount of green manure a crop will produce.

ACP REPRE: Right here I might mention that other crops have a special value because they have deep tap roots....alfalfa and sweet clover are examples. In the West those crops are liked because they penetrate hard layers of the soil. Then when the cover crops are turned under the roots break down and open millions of little waterways down through the tight layers of soil. In this way the compact layers of sub-soil are loosened up and the water holding capacity is increased.

ANNOUNCER: I've seen some pictures of soils in the Middle West that were pretty well packed right below plow depth. Maybe they could use tap rooted cover or green manure crops there.

ACP REPRE: No doubt. Of course farmers already grow a lot of green manure crops in the Middle West every year. We have become so used to thinking of the cover crops grown in the South in the winter that we forget that other sections of the country also use cover and green manure crops.

ANNOUNCER: Well, if there are a hundred million acres of land in this country that should be in cover or green manure crops every year that's a pretty good proportion of the land that we farm. How many acres of land do we cultivate?

ACP REPRE: Around 360 million acres.

ANNOUNCER: Then with a hundred million acres of cover and green manure crops we would have about one acre out of every three and a half in cover or green manure crop every year.

ACP REPRE: And now is the time for those who grow winter cover crops to get out and take a look at them....yes, and for farmers who haven't grown cover crops to take a look at those of their neighbors. This is a good time to find what kind and what variety is best in different parts of the country.

ANNOUNCER: An excellent idea and thank you, (name) for it. And may I tell those of you who don't already know it that Mr. (Name) is the (title) of the _____ Agricultural Conservation Committee.

